

Abstract

Use of transition metal complexes of the formula (I) in organic light-emitting diodes

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where:

- 10 M^1 is a metal atom;
 carbene is a carbene ligand;
 L is a monoanionic or dianionic ligand;
 K is an uncharged monodentate or bidentate ligand selected from the group consisting of phosphines; CO; pyridines; nitriles and conjugated dienes which form a π complex with M^1 ;
 15 n is the number of carbene ligands and is at least 1;
 m is the number of ligands L, where m can be 0 or ≥ 1 ;
 o is the number of ligands K, where o can be 0 or ≥ 1 ;
 where the sum $n + m + o$ is dependent on the oxidation state and coordination number of the metal atom and on the denticity of the ligands carbene, L and K
 20 and also on the charge on the ligands carbene and L, with the proviso that n is at least 1, and also

an OLED comprising these transition metal complexes, a light-emitting layer comprising these transition metal complexes, OLEDs comprising this light-emitting layer, devices comprising an OLED according to the present invention, and specific
 25 transition metal complexes comprising at least two carbene ligands.